

# **Chemicals Used In Food Businesses**

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# What chemicals are there?

## What are they used for?

- **Cleaning**
  - General dishwashing liquid and/or spray and wipe.
- **Sanitising**
  - Ammonium, chlorine and alcohol based products between 4%-6%. Supermarket products are only around 1%- 2%
- **Dish washing products**
  - Heavy caustic based product – generally chlorine based
  - Alcohol rinse aid to dry and neutralise the acid
- **Degreasers**
  - Used for floors to get rid of grease- sodium caustic base

# Can sanitisers be used to clean?

- No - sanitisers do not clean they are used after cleaning to reduce the number of microorganisms
- Cleaning must be undertaken prior to sanitising for the sanitiser to be effective

# What products are suitable for use as food grade chemical sanitisers?

## **Sanitisers:**

- Active ingredient should be between 4%-6% of the product. If not its classed as a disinfectant not a sanitiser
- Should have the active ingredient listed and how many milligrams per litre
- Should not specify on the label anywhere it is a disinfectant, even though it says it's a sanitiser
- Should be fragrance free
- Colour? Some have colour, while it may still be used as a sanitiser may leave a residue
- If you see a powder residue it's from the acid drying indicating there is too much product or in dishwashers it indicates they have not gone through correct sanitising procedures.

# How do you calculate the active parts per million (PPM) of a sanitiser?

- Should be printed on the label specifying 40 grams or 60 grams per litre
- If it's not printed on the label you can't determine

# What rules apply to sanitisers to ensure they are effective?

- Temperature:
  - Use cold water for ammonium based products because hot water kills the active organism
- pH level:
  - should be between 9-11 pH to be effective
- Contact time:
  - allow approximately 10 minutes for ammonium and chlorine based
  - Alcohol based about 60 seconds as it dries quickly
- Fragrance:
  - Should not contain a fragrance because they are oil based and it will leave an oil residue on surfaces

# What conditions should chemicals be kept in to ensure their effectiveness?

- Do not store in hot weather conditions or hot areas
- Do not store in sun light
- Do not keep past the expiry date
- Use and store according to manufacturers specifications

# How often should different sanitisers be made up or changed?

- Ammonium:
  - Lasts a couple of days if made up and stored correctly
- Chlorine:
  - Daily as it loses its effectiveness



# Are Methylated spirits , Orange oil and vinegar suitable for sanitising?

- Methylated spirits:
  - Ethanol and methylated spirits can be in some circumstances however they will leave a chemical residue
- Orange and citrus based:
  - Leaves an oil residue
- Vinegar:
  - Vinegar is a weak acid and not effective in killing microorganisms

# What industry regulates the manufacture & supply of sanitisers & cleaning products?

- There is no body that regulates the industry
- AQIS used to give licenses, however this was abolished in June 2012

# What is this the best way to check if a sanitiser is effective?

- The best way to determine is with a pH test strip.
- To test sanitisers:
  - Dip a test strip into the made up sanitiser solution
  - Match the colour to the side of the test strip container
  - It should be around a 9 pH level

# What is the difference between domestic and commercial dishwasher cleaners?

- Domestic dishwashers use powder products
- Domestic dishwashers may not reach adequate temperatures for heat sanitising

# Do sanitisers need to be rinsed off at low dilution rates?

- No they do not, however it is good practice to get rid of any residue

# Is spraying equipment to sanitise effective or must they be fully immersed in a sink?

- Where possible it is recommend immersing equipment, however if equipment cannot be immersed it can be thoroughly sprayed with a sanitiser solution
- All equipment must be cleaned first for sanitiser to be effective

# Education!

- Education is the key to ensure the people using chemical cleaners and sanitisers know how to use the products effectively
- Ensure instructions are in a language they can understand
- Check the labels and ensure the instructions are easy to understand

# Questions?

